

What is claimed is:

1. A method for identifying a compound for altering a protein activity, comprising: identifying a compound that modulates methylation of a protein phosphatase that affects a protein activity and determining that the protein activity is altered by modulating with the compound methylation of the protein phosphatase.
2. A method according to claim 1, wherein the protein phosphatase is a PP2A protein phosphatase.
3. A method according to claim 2, wherein the protein activity is the phosphate level of a phosphorylated protein.
4. A method according to claim 3, wherein the protein activity is phosphorylation of tau.
5. A method according to claim 4, wherein tau is hyperphosphorylated, and the compound increases methylation of PP2A and decreases tau hyperphosphorylation.
6. A method for identifying a composition for altering a protein activity, comprising: identifying a composition that modulates methylation of a protein phosphatase that affects a protein activity, using the composition to modulate methylation of the phosphatase, and determining that modulating phosphatase methylation alters the protein activity.
7. A method according to claim 6, wherein the composition is an extract of a natural product.
8. A method according to claim 6, wherein, the composition is an extract of a traditional medicine.
9. A method according to claim 8, wherein the protein phosphatase is a PP2A protein phosphatase.
10. A method according to claim 9, wherein the protein activity is tau phosphorylation.

11. A method according to claim 9, wherein tau is hyperphosphorylated, the compound increases methylation of PP2A and decreases tau hyperphosphorylation.

12. A compound identified by the method of claim 1.

13. A composition identified by the method of claim 6.

14. A composition comprising a compound according to claim 12.

15. A method for treatment of cells to alter therein an activity of a protein, comprising administering to the cells by an effective route a compound of claim 12 in an amount effective to alter therein the activity of the protein.

16. A method for treatment of cells to alter therein an activity of a protein, comprising administering to the cells by an effective route a composition of claim 13 in an amount effective to alter therein the activity of the protein.